

L Number	Hits	Search Text	DB	Time stamp
1	462	BiMOS and @ad<20020614	USPAT; US-PGPUB	2004/05/07 16:58
2	232	(BiMOS and @ad<20020614) and base and emitter and source and drain and transistor	USPAT; US-PGPUB	2004/05/07 16:56
3	86	((BiMOS and @ad<20020614) and base and emitter and source and drain and transistor) and buried	USPAT; US-PGPUB	2004/05/07 16:17
4	86	((BiMOS and @ad<20020614) and base and emitter and source and drain and transistor) and buried) and (gate or electrode)	USPAT; US-PGPUB	2004/05/07 16:17
5	60	(BiMOS and @ad<20020614) and base and emitter and source and drain and transistor and (gate with contact)	USPAT; US-PGPUB	2004/05/07 16:50
6	41	((BiMOS and @ad<20020614) and base and emitter and source and drain and transistor and (gate with contact)) and (gate with polysilicon)	USPAT; US-PGPUB	2004/05/07 16:56
7	2449	base and emitter and source and drain and transistor and collector and buried and (gate or electrode)	USPAT; US-PGPUB	2004/05/07 16:58
8	2324	(base and emitter and source and drain and transistor and collector and buried and (gate or electrode)) and @ad<20020614	USPAT; US-PGPUB	2004/05/07 16:58
9	2324	((base and emitter and source and drain and transistor and collector and buried and (gate or electrode)) and @ad<20020614) and (deep wtih collector)	USPAT; US-PGPUB	2004/05/07 16:58
10	265	((base and emitter and source and drain and transistor and collector and buried and (gate or electrode)) and @ad<20020614) and (deep near3 collector)	USPAT; US-PGPUB	2004/05/07 16:58
11	260	((base and emitter and source and drain and transistor and collector and buried and (gate or electrode)) and @ad<20020614) and (deep near3 collector)) and ((contact or electrode) near3 (emitter or base or collector or source or drain or gate or electrode))	USPAT; US-PGPUB	2004/05/07 17:00
12	258	((((base and emitter and source and drain and transistor and collector and buried and (gate or electrode)) and @ad<20020614) and (deep near3 collector)) and ((contact or electrode) near3 (emitter or base or collector or source or drain or gate or electrode))) not ((BiMOS and @ad<20020614) and base and emitter and source and drain and transistor and (gate with contact)) and (gate with polysilicon))	USPAT; US-PGPUB	2004/05/07 17:00

L Number	Hits	Search Text	DB	Time stamp
1	2	emitter with "III/VI"	USPAT; US-PGPUB	2004/05/07 17:53
2	2	emitter same "III/VI"	USPAT; US-PGPUB	2004/05/07 17:53
3	2	emitter and "III/VI"	USPAT; US-PGPUB	2004/05/07 17:53
4	0	emitter and "III/VI"	EPO; JPO; DERWENT; IBM_TDB	2004/05/07 17:53
5	360	emitter and "VI"	EPO; JPO; DERWENT; IBM_TDB	2004/05/07 17:54
6	561	emitter same "VI"	USPAT; US-PGPUB	2004/05/07 18:01
7	216	(emitter same "VI") and bipolar	USPAT; US-PGPUB	2004/05/07 18:02
8	154	((emitter same "VI") and bipolar) and base and collector and transistor	USPAT; US-PGPUB	2004/05/07 18:03
9	137	((emitter same "VI") and bipolar) and base and collector and transistor) and @ad<20020614	USPAT; US-PGPUB	2004/05/07 18:03
10	14949	emitter with (Gas or GaSe or GaTe or InS or InSe or InTe or TlS)	USPAT; US-PGPUB	2004/05/07 18:03
11	6309	(emitter with (Gas or GaSe or GaTe or InS or InSe or InTe or TlS)) and bipolar	USPAT; US-PGPUB	2004/05/07 18:03
12	5332	emitter near3 (Gas or GaSe or GaTe or InS or InSe or InTe or TlS)	USPAT; US-PGPUB	2004/05/07 18:03
13	2335	(emitter near3 (Gas or GaSe or GaTe or InS or InSe or InTe or TlS)) and bipolar	USPAT; US-PGPUB	2004/05/07 18:03
14	1864	((emitter near3 (Gas or GaSe or GaTe or InS or InSe or InTe or TlS)) and bipolar) and base and collector and transistor	USPAT; US-PGPUB	2004/05/07 18:03
15	1739	((emitter near3 (Gas or GaSe or GaTe or InS or InSe or InTe or TlS)) and bipolar) and base and collector and transistor) and @ad<20020614	USPAT; US-PGPUB	2004/05/07 18:03
16	500	((emitter near3 (Gas or GaSe or GaTe or InS or InSe or InTe or TlS)) and bipolar) and base and collector and transistor) and @ad<20020614) and buried and (gate or electrode)	USPAT; US-PGPUB	2004/05/07 18:04
17	412	((emitter near3 (Gas or GaSe or GaTe or InS or InSe or InTe or TlS)) and bipolar) and base and collector and transistor) and @ad<20020614) and buried and (gate or electrode)) and source and drain	USPAT; US-PGPUB	2004/05/07 18:04
18	350	((emitter near3 (Gas or GaSe or GaTe or InS or InSe or InTe or TlS)) and bipolar) and base and collector and transistor) and @ad<20020614) and buried and (gate or electrode)) and source and drain) and MOS	USPAT; US-PGPUB	2004/05/07 18:04
19	67	((emitter near3 (Gas or GaSe or GaTe or InS or InSe or InTe or TlS)) and bipolar) and base and collector and transistor) and @ad<20020614) and buried and (gate or electrode)) and source and drain) and MOS) and (deep with collector)	USPAT; US-PGPUB	2004/05/07 18:05

US-PAT-NO: 6207976

DOCUMENT-IDENTIFIER: US 6207976 B1

TITLE: Semiconductor device with ohmic
contacts on compound semiconductor and manufacture thereof

----- KWIC -----

Brief Summary Text - BSTX (26):

According to another aspect of the present invention, there is provided a semiconductor device comprising: a substrate having a principal surface; a collector layer formed on the principal surface of the substrate and made of a compound semiconductor material of a first conductivity type; a base layer formed on a partial surface area of the collector layer and made of a compound semiconductor material of a second conductivity type opposite to the first conductivity type; an emitter layer formed on a partial surface area of the base layer and made of a compound semiconductor material of the first conductivity type; a collector electrode formed on a surface of the collector layer where the base layer is not formed, the collector electrode being electrically connected to the collector layer with an ohmic contact; a base electrode formed on a surface of the base layer where the emitter layer is not formed, the base electrode being electrically connected to the base layer with an ohmic contact; an emitter electrode formed on a surface of the emitter layer and electrically connected to the emitter layer with an ohmic contact; and an intermediate layer disposed at least one area between the collector electrode and the collector layer, between the base electrode and the

base layer, or
between the emitter electrode and the emitter layer, the
intermediate layer
being made of a compound material containing Ga as a group
III element and S as
a group VI element and having a thickness of at least two
monolayers or
thicker.

Claims Text - CLTX (39):

an intermediate layer disposed at least one area between
the collector
electrode and the collector layer, between the base
electrode and the base
layer, or between the emitter electrode and the emitter
layer, the intermediate
layer being made of a compound material containing Ga as a
III group III
element and S as a VI group VI element and having a
thickness of at least two
monolayers or thicker.